Remarks/Arguments begin on page 9 of this paper.

An **Appendix** including replacement sheets is attached following page 12 of this paper.

Amendments to the Specification:

Please amend the paragraph at page 10, line 19 of the specification as follows:

Reference is made to FIG. 2, which presents various values concerning an exemplary situation of data transmission from a base-station transceiver to active subscriber units over an exemplary time period. For the sake of illustration, only fifteen consecutive allocation time slots are considered and the number of active subscriber units has been assumed to be only five and to remain constant over the period. ~~Table A~~ FIG. 2A represents the assumed channels usage in this example. More specifically, ~~table A~~ FIG. 2A shows the rate level at which data is transmitted to each subscriber unit at each allocation time slot. A rate level, R, is a multiplier, which, when multiplying the fundamental channel rate (which is usually about 10 kb/s), yields the transmission rate of the channel with which it is associated. It is to be noted that in the application of the method of the invention, of which this is an example, we are not concerned with the manner by which channels have been assigned to the subscriber units; we need only assume that all active subscriber units are served to some extent over any given period and, as will be further discussed below, that channels are assigned so that the total transmission rate at each time slot is limited only by the maximum power of the radio transmitter. It should further be noted that, according to common practice, each active subscriber unit is assigned at each time slot a channel of at least level 1 (i.e. a fundamental channel), regardless of the size of its queue in the buffer.

Please amend the paragraph at page 11, line 12 of the specification as follows:

~~Table B of FIG. 2~~ FIG. 2B represents the assumed radio transmission conditions over the exemplary period. More specifically, ~~table B~~ FIG. 2B shows the specific power for each of the five subscriber units, which is the relative power required to transmit data to the respective subscriber unit at the fundamental channel rate. Relative power is the transmitted radio power, expressed as a fraction of the maximum transmittable power. As explained above, specific power is a function of the radio transmission conditions. Transmitting data at a rate higher than that of a fundamental channel requires a commensurately higher power. The relationship between such higher relative power level, p, and the specific power, sp, is a function of the rate level, R:

Please amend the paragraph at page 11, line 25 of the specification as follows:

~~Table C of FIG. 2~~ FIG. 2C shows the assumed relative power levels of transmission to each subscriber unit at each time slot. It has been obtained by assuming eq. 2 to hold true and thus multiplying each entry of ~~Table A~~ FIG. 2A by the specific power of the corresponding subscriber unit (per ~~Table B~~ FIG. 2B). The bottom row of the table contains, for each allocation time slot, the sum of the relative power levels of all five subscriber units, which is the total power transmitted at the time slot. It is observed that these totals are between 0.9 and 1 and this signifies that the total transmitted power was at all times close to the maximum possible. It is further observed that the relative power levels for the individual subscriber units do generally vary among the time slots in what appears to be a random manner, which reflects the apparently random rate (channel) assignment, seen in ~~Table A~~ FIG. 2A. The latter probably results, inter-alia, from the interaction between the discrete nature of the channel rate structure, as well as of the IP packets, the algorithm of channel assignment and the randomness of data ingress to the BSC's buffers.

Please amend the paragraph at page 12, line 9 of the specification as follows:

Figure 3 is a column diagram that shows graphically some of the values of FIG. 2. The first, left-hand, column represents the specific power values for the five subscriber units. The other three columns represent the relative power levels transmitted during the first three time slots. In each column the segments for the five subscriber units are stacked, so that the height of the column represents the total transmitted power. It is again observed that the total values are practically close to 1. It is pointed out that FIGS. 2 and 3 serve to illustrate an exemplary transmission situation, to be used to explain the method of the invention; they do not, however, illustrate the method itself or its effects. It is, further, important to note that the values of the variables that are represented in these figures are not known and not available outside the RAN; it is, in fact, an object of the method of the invention to estimate the latest values of the specific power for each subscriber unit, such as those appearing in ~~Table B~~ FIG. 2B for the present example.

Please amend the paragraph at page 13, line 26 of the specification as follows:

We now turn to FIG. 5, which presents exemplary values obtained by observing data ingressed to the BSC over five consecutive observation windows, namely those marked 1 to 5 in FIG. 4. The number of observation windows, over which the measured data flow is to be considered at any time (here--five) is preferably equal to the number of active subscriber units. ~~Table A~~ FIG. 5A presents the average ingress rate of data addressed to each subscriber unit, as measured over each window. The values in the table are multipliers of the transmission rate of a fundamental channel and thus are akin to the rate level values in ~~Table A of FIG. 2~~ FIG. 2A. It is recalled that, by the action of the flow control function in the feeding IP system, the rate of data ingress to the BSC, for any subscriber unit, is assumed to approximately equal the average rate of data actually transmitted to the subscriber unit. Clearly there is also a certain delay involved in this rate equalization process, which delay is also, in part, due to the function of the buffer in the BSC and of the channel allocation process. In our present example we assume, for the sake of clarity and simplicity in the demonstration, an idealized model, wherein the measured rate over a window is exactly equal to the average transmission rate over a corresponding sequence of three time slots.

The correspondence between the windows and the triads of time slots is based on an assumed delay, which is evident from FIG. 4, where window 1 corresponds to time slots ~~1-3~~ 2-4, window 2-to time slots ~~4-6~~ 5-7, etc. Accordingly, the values in ~~Table A~~ FIG. 5A, which should be regarded as simulative, have been obtained by simply averaging the corresponding triads of values in ~~Table A of FIG. 2~~ FIG. 2A. It is noted that in actual operation, the values in ~~Table A of FIG. 5~~ FIG. 5A would be obtained by measuring the ingress rates, as described above, since all values relating to radio transmission, as those in FIG. 2, would be unknown. It is further noted that, in actual operation, also the relationship between the observation windows and the time slots, as depicted for example in FIG. 4, is not known, nor is such knowledge required for the method of the invention to function.

Please amend the paragraph at page 14, line 25 of the specification as follows:

~~Table B of FIG. 5~~ FIG. 5B presents, for each subscriber unit over each observation window, hypothetical relative power levels that are equivalent to the corresponding average rates of ~~Table A~~ FIG. 5A when assuming the respective specific power values of the subscriber units, as listed in ~~Table B of FIG. 2~~ FIG. 2B, and a linear power/rate function. The values here are obtained in the same manner as those in ~~Table C of FIG. 2~~ FIG. 2C. They could also be obtained by averaging the values in ~~Table C~~ FIG. 2C over corresponding time slots. Indeed they ideally represent the average hypothetical power levels of transmission for the corresponding measured data. It is noted that if eq. 1 is non-linear, the values in ~~Table B~~ FIG. 5B are not exactly averages of transmitted power values, however in practical cases they will generally be close enough thereto for the method of the invention to function with reasonable accuracy. The values of ~~Table B of FIG. 5~~ FIG. 5B are presented graphically in the column diagram of FIG. 6, which is similar to that of FIG. 3. It is observed here, again, that the total equivalent relative power, represented by the height of a column, is nearly 1--which is an assumed conditioned underlying the method.

Amendments to the Claims: